

Ziegler, K.
POLYMERIZATION OF ETHYLENE. [1962] [15]p.
5 refs.
Order from SLA \$1.60
62-20057
Trans. of Soc[été] Chim[ique de] France. Bull[etin]
1956 [no. 1] p. 1-6.
DESCRIPTORS: *Polymerization, *Ethylenes,
*Metallorganic compounds, Buxenes, Polymers, Alumi-
num compounds, Polyethylene plastics.

(Chemistry--Organic, T.T. v. 9, no. 10)

62-20057

1. Ziegler, K.

Office of Technical Services

Electrolytic Reduction of Some Aromatic Organic Compounds.
Part IV. Reduction of Aromatic Organic Compounds, by
J. K. Stille, in *Journal of the American Chemical Society*,
Vol. 76, No. 1, 1954, pp. 125-134.
E-12 285 2

Sci-Chem
March 64

285,071

by K. Ziegler.

GERMAN, per, Angewandte Chem, Vol LXVII, No 19, 20,
7 Oct 1955.

OIN Tr

Scientific - Chemistry

Feb 56 CTS/DIX

New Developments in Organometallic Synthesis,
by K. Ziegler, 9 pp.

RUSSIAN, per, Khim Nauka i Proiz, Vol II, No 1,
1957, pp 19-23.

Also Tech Svc 16J16R

ATS RT-275

Sci

Aug 58

69,802

The First Products of the Action of Alkali Metals on
Butadiene, by K. Ziegler, L. Jakob, H. Wolthan, A. Wenz,
30 pp.

Full translation.

GERMAN, per, Annalen, XXX Vol DXI, 1934, pp 64-88.

S.L.A.

Scientific - Chemistry

Aug 55

27,421

Stereochemical Studies: II. cis-1, 2-Dimethylethylene
from Butadiene-(1,3) (1), by K. Ziegler, F. Haffner,
H. Grinn, 20 pp.

Full translation.

GERMAN, per, Annalen, Vol DXXVIII, 1937, pp 101-113.

S.L.A.

Scientific - Chemistry

27,422

Aug 55

The Ring Size and Activity of Cyclic Cis Olefins,
9 pp, by K. Ziegler, H. Froitzheim.

GERMAN, per, Justus Liebigs Ann Chem, Vol DLXXXIX,
1954, pp 157-162.

SLA 2899

Sci - Chemistry
Mar 58

59,772

Low-Pressure Process for Production of High-
Molecular Weight Polyethylene, U.S. Pat. 2,740,000
Inventor, by Karl Ziegler, 2/25/55
Patent 2,740,000, filed 26 May 55
(Germany, Germany)
U.S. Pat. 2,740,000

Karl Ziegler

Sci - Nat
May 67

130,840

The Methylbenzyl Process: Polyethylene Process,
by K. Ziegler, E. Holthaus, H. Breil, H. Martin,
1955

Chemical, par, ~~Ammonia~~ Chloride, Vol 67, 1955,

No 19/20, pp 341-347

CIA 85-1001A

ASE-882100

K. Ziegler

Sci - Eng
June 67

329,507

Process for Producing Complex Compounds by Hydro-
carbon Aluminums and Alkali Fluorides, by K. Ziegler,
5 pp.

GERMAN, Patent Appl 2 3584, 1955.

RIS Rpt 96259

Sci - Chemistry
Mar 58

59,769

Method for the Preparation of Sodium Cyclopentadiene,
Sodium Alkyl- and Sodium Benzylcyclopentadiene, by
K. Ziegler, 11 pp.

Ziegler
GERMAN, Patent Application Z 2536 (Class 12, 25),
21 Apr 1952. Patentblatt, Vol LXXIV, 15 Jul 1954,
p 1019.

S.L.A. Tr No 57-139

Sci - Chemistry, organic
Apr 57

46,855

Recherches Sur les Composes Cyano-Alcalins. XVI.
Stabilite a la Chaleur des Composes Alcoyles du
Lithium, by K. Ziegler, H. G. Gallert, 5 p.

GERMAN to FRENCH, per, Annal Chem, 1950, Vol DLXVII,
pp 179-185.

CEA-tr-A953

Sci
Feb 60
Vol 2, No 10

Lithium and Magnesium Methylenes, by K. Ziegler,
K. Nagel, M. Pataiger, 3 p.

GERMAN, per, Z. Anorg Chemie, 1955, Vol CXLXXII,
No 1-6, pp 345-351.

SLA 59-15940

Sci
Dec 59
Vol 2, No 6

104,114

Alumino-organic Syntheses in the Field of Olefinic
Hydrocarbons, by K. Ziegler, 16 pp.

Full translation.

GERMAN, per Angew. Chem., Vol. LXIV, 1952, pp 323-329.

S.L.A.

Scientific - Chemistry

27,420

Aug 55

Organo-Aluminum Syntheses With Olefinic Hydrocarbons,
by K. Ziegler, 19 pp,

per,
GERMAN, Angew. Chemie, Vol LXIV, pp 323-331, 1952.

CIA/PID/X-1557

21,434

Scientific - Chemistry Feb 55 CTS

Two-Stage Process for Preparation of Azulenes, by K.
Ziegler, 18 pp.

GERMAN, Patent Appl 23,614 (120, 25), 10 Nov 1955.

Res Info Service

Sci

Aug 59

94,173

Process of Propylene, Butene and Styrene of Reduced
Degrees of Polymerisation, by K. Kiegler, 11 pp.

BELGIAN, Patent No 551,905, 18 Oct 1956, Montecantini
Soc Gen per L'Industria Mineraria e Chimica.

Res Info Service

Sci

Aug 59

94,079

Process for Polymerisation of Ethylene With Preforced
Grignard Compounds, by K. Ziegler, 4 pp.

GERMAN, Patent Appli Z 1118, 1952.

RIS Rpt 6106

Sci - Chemistry
Mar 58

59,765

The Preparation of Polyethylene As a Classroom
Experiment, by K. Ziegler, H. Martin.

GERMAN, par, Makromol Chem, No 18, 19, 1956,
pp 186-194.

SH 61-25124
Assoc Tech Sv
Tr 33HLOG
\$9.00

52,246

Sci - Chem
Sep 57

63-22492

~~Ziegler, K. and Colonius, H.~~

A SUITABLE SYNTHESIS OF SIMPLE LITHIUM
ALKYLS. Pt. 5 of Research on Alkali Organic Com-
pounds. [1963] 19p.
Order from K-H \$19.00

K-H 3456 d

Trans. of [Hustus Liebig's] Annalen der Chemie
(Germany) 1930, v. 479, p. 135-149.

DESCRIPTORS: *Metalorganic compounds, *Alkali
metal compounds, *Lithium compounds, Alkyl radicals,
Synthesis (Chemistry), Ziegler catalysts.

(See also K-H 3456 c)

(Chemistry--Organic, IT, v. 10, no. 10)

I. Ziegler, K.
II. Colonius, H.
III. K-H-3456-d
IV. Title: Research...
V. Kresge-Hooker Science
Library Associates,
Detroit, Mich.

1-52364

Office of Technical Services

Organometallic Compounds From the Standpoint of
Macromolecular Synthesis, by K. Ziegler, 14 pp.

Review
Goskhim, per, Sbornik Chexoslovatskykh Khimicheskikh
Rabot, Vol XIII, 1957, p 295.

SLA 60-10778

Sci
Jun 60
Vol III, No 5

119,051

Process for Producing Mixtures Containing Aromatic C₈-Hydrocarbons and ~~an~~ No m-Xylene, by K. Ziegler, 10 pp.

GERMAN, Pat Appl Z 2548, 1956.

BIA/RES-96693

Sci

Jul 58

Rec Ind. Serv

\$17.50

68,489

Continued from the preceding page, by E. Zinger, 48
E. Zinger
Continued from the preceding page, Vol. XL,
No. 2, 1954, p. 100.
Continued from 100.

Vol. - No. 100
100 100

100,000

The Halogenation of Unsaturated Substances in the
Allyl Position, by K. Ziegler, A. Spath, 2 p.

GERMAN, per, Partial trans, Justus Liebig's Ann
der Chemie, 1942, Vol III, No 1-3, pp 80-119.

SLA 60-10557

Sci
May 60
Vol 3, No 4

The ⁵Indivisi⁵bility of Research-Explained by Means
of Investigations at the Max-Planck-Institute, for
Coal Research, by K. Ziegler.

GERMAN, (er, Gluckauf, Vol XXI, 1955, pp 1266-1272

INSDOC-T1.779

Sci

Jul 59

92,380

63-22831

Ziegler, K[arl] and Jakob, L.
THE "CATALYSIS" OF THE POLYMERIZATION OF
UNSATURATED HYDROCARBONS BY ALKALI OR-
GANIC COMPOUNDS, XII. [1963] 25p (figs omitted)
Order from K-H \$25.00 K-H-3456-e

Trans. of [Justus Liebig's] Annalen der Chemie
(Germany) 1934, v. 511, p. 46-63.

DESCRIPTORS: *Organic compounds, *Hydrocarbons,
Polymerization, *Catalysis, *Alkali metal compounds

I. Ziegler, K.
II. Jakob, L.
III. K-H-3456-e
IV. Kresge-Hooker Science
Library Associates,
Detroit, Mich.

6328

(Chemistry-Organic, TT, v. 10, no. 12)

Office of Technical Services

Ziegler, K[arl] Crossmann, F., Kleinger, H., and
Schafer, O.

REACTIONS BETWEEN UNSATURATED HYDROCAR-
BONS AND ALKALI METAL ALKYLs. Pt. I of [Re-
search on Alkali Organic Compounds]. [1963] 48p (figs
omitted)

Order from K-H \$48.00

K-H-3559-a

Trans. of [Justus Liebig's] Annalen der Chemie
(Germany) 1929, v. 473, p. 1-35.

DESCRIPTORS: *Alkyl radicals, *Alkali metal com-
pounds, *Hydrocarbons, Chemical reactions

(Chemistry--Organic, TT, v. 10, no. 12)

63-22839

- I. Ziegler, K.
- II. Crossmann, F.
- III. Kleinger, H.
- IV. Schafer, O.
- V. Title: Research...
- VI. K-H-3559-a
- VII. Kresge-Hooker Science
Library Associates,
Detroit, Mich.

6

Office of Technical Services

IMPROVEMENT OF LEADERSHIP AND ABSOLUTE PLAN
DISCIPLINE IN THE FIELD OF WATER MANAGEMENT,
BY KARL-HEINZ ZIEGLER, 9 PP.

GERMAN, PER, WASSERWIRTSCHAFT-WASSESTECHNIK,
VOL XII, NO 8, 1962

JPRS 15857

EEUR-GERMANY
ECON
OCT 62

215,062

63-22840

Ziegler, K[arl] Derach, F., and Wollhan, H.
THE MECHANISM OF THE POLYMERIZATION OF
UNSATURATED HYDROCARBONS BY ALKALI
METALS AND ALKALI ALKYLs. Pt. 9 of [Research
on Alkali Organic Compounds]. [1963] 50p (figs
omitted)

Order from K-H \$50.00

K-H-3456-f

Trans. of [Justus Liebig's] Annalen der Chemie
(Germany) [1934] v. 511, p. 13-44.

DESCRIPTORS: *Alkyl radicals, *Alkali metal com-
pounds, *Hydrocarbons, Polymerization

- I. Ziegler, K.
- II. Derach, F.
- III. Wollhan, H.
- IV. Title: Research...
- V. K-H-3456-f
- VI. Kresge-Hooker Science
Library Associates,
Detroit, Mich.

6

(Chemistry--Organic, TT, v. 10, no. 12)

Office of Technical Services

Process and Apparatus for the Manufacture of
Dialkylaluminum Hydrides and Trialkylaluminum
Compounds, by Karl Ziegler, 11 pp.

FRENCH, Belgian Patent No 546,432, 1955.

NOT RELEASABLE TO FOREIGN NATIONALS

CIA/PID XX-283

737,663

Sci - Chemistry
May 1957 CTS/dax
IAC INTERNAL USE ONLY

Received

Organometallic Compounds in Petrochemistry, by K
Ziegler.
~~Source: Chemical Abstracts~~ Brennstoffe Bren. Ver. 1959
Fifth World Petroleum Congress, 31 May-
6 Jun 1959, pp 1-8.

ATB 232-FJ

Sci
Nov 59

100,430

Ziegler, Karl.
ORGANO-METALLIC COMBINATIONS IN PETRO-
CHEMISTRY (Combinaisons Organo-Metalliques dans
la Petrochimie). [1961] [18]p. 46 refs.
Order from SLA ml\$2.40, ph\$3.30 61-10560

Trans. of [paper presented at] World Petroleum Con-
gress, New York, 31 May-6 June 59.

SLA TT-65-10332

61-10560

1. Metalorganic compounds--
Applications
2. Petroleum industry
3. Chemical engineering
1. Ziegler, K.

Office of Technical Services

(Engineering--Chemical, TT, v. 5, no. 11)

Organo Metallic Compounds: Aluminum Trialkyls and
Dialkyl Aluminum Hydrides as Reducing Agents, by
Karl Ziegler, Kurt Schneider, Josef Schneider,
15 p.

GERMAN, per, Justus Liebig^S Annalen der Chemie ,
1959, Vol DXXXIX, No 1/3, pp 9-16.

SLA 60-10132

Sci
Apr 60
Vol III, No 3

112,097

A New Catalytic Conversion of Olefins, by Karl
Ziegler, 35 pp.

GERMAN, per, Brennstoff-Chem, Vol XXXIII, No 11/12,
June 25, 1952, pp 193-200.

WIE 3-9-61

Sci - Med
Apr 61

150,584

Procedure for the Transformation of Organo-Aluminum
Halides With Olefins, by Karl Ziegler, 2 pp.

GERMAN, Patent Appl, 28 Feb 1958.

CIA/FDD XX-805
NOT RELEASABLE TO FOREIGN NATIONALS

Sci - Chem

Mar Apr 60

USIB INTERNAL USE ONLY

Activation of α Olefin Polymerization by Metal-Organic Compounds, by Dr. Karl Ziegler, 4 pp.

GERMAN, patent No 839 229, granting of patent made known 30 Jul 1953, application publ: 28 Aug 1952, Report 96263.

CIA/FDD/XX-63

Scientific - Chemistry
Min/Metals

Jan 56 CTS/DEX

30,384

IAC INTERNAL USE ONLY

SECRET
(U.S.S.R.)

Method for Polymerisation of Ethylene,
by Karl Ziegler, Hans-Georg Gallert,
2 pp

GERMAN, pat, German Patent No 883,067,
Class 390, Sub Group 25/01, publ 13 Jul 1953.

22,854

CIA/PID/X-1583

Scientific - Chemistry Apr 55 CTS

Method for the Polymerization and Copolymerization
of Olefins, by Karl Ziegler, Hans-Georg Gellert,
13 pp

GERMAN, patent, German Patent No. 878,560, 878,560
Class 39C, Group 25/01, publ. 5 Jun 1953.

Ref. Info. No. 96862
CIA/FOIA-1584

21,855

Scientific - Chemistry Apr 55 CTS

Process for Preparation of 2-Ethyl Hexanoic Acid
from Butene-2 or from Mixtures of Butene-1 and
Butene-2, by Karl Ziegler, Friedrich Kluge, 3 pp.

GERMAN, patent application P 12426 IVb/120,
22 July 1953.

34063

CIA/FDD/EX-128
NOT RELEASABLE TO
FOREIGN NATIONALS

Scientific - Chemistry

MAY 56 CIA FILE

NO INTERNAL USE ONLY

The Route of the Metabolites from the Lab-
oratory to Chemical Petroleum Industry,
by Karl Ziegler, 25 pp.
Chem. Abstr. 1970, 70:11, 1970, pp 104-105
NIA 12-67-10305

Karl Ziegler

130, 104

Sci
Aug 67

Process for Improving the Mechanical
Properties of Films, Sheets and Tapes
Obtained From High Molecular (Crystal-Line
Linear α -Olefinic Polymers, Particularly
Polypropylene, by Karl Ziegler, 9 pp.

FRENCH, Belgian Patent 571,390, 10 Oct 1957.

RIS Rept 97066

188,059

Sci
Vol 4, No 1
Mar 62

Method for the Preparation of Aluminum
Trialkyls and of Aluminum Alkyl Hydrides, by
Karl Ziegler, 14 pp.

BELGIAN, patent no 535,235, (Corresponding to
German patent applications 8 3966 (1 Feb 1954),
Z 4190, Z 4191, Z 4192 (8 May 1954), 27 Jan 1955.

34,062

CIA/FDD/XX-125
NOT RELEASABLE TO
FOREIGN NATIONALS

Scientific - Chemistry

May 56 CTS/DEX

IAC INTERNAL USE ONLY

Process for the Preparation of High Molecular-Weight
Polyethylenes for Use as Synthetic Products, and
Catalysts therefor, by Karl Ziegler, 11 pp.

FRANCE, Belgian patent No 534,836.

US Dept of Commerce
Patent Office
Sci Lib (gift)

Sci - Chemistry
Jul 58

66,645-

Process for the Preparation of Linear Polymers of
Xinix Vinyl Aromatic Hydrocarbons and Products Ob-
tained by This Process, by F. Turati, Karl Ziegler,
16 pp.

ITALIAN, Belgian Patent 555,252, The Societe Monte-
catini, Societa Generale per l'Industria Mineraria e
Chimi.

CIA/FDD XI-451

NOT RELEASABLE TO FOREIGN NATIONAL

Sci - Chemistry
May 58

64,068

IAC INTERNAL USE ONLY

Improvements in the Preparation of Crystalline Polystyrene, by F. Turati, Karl Ziegler. 14 pp.

ITALIAN, Belgian Patent 555,268. Montecatini, Societa Generale per l'Industria Mineraria e Chimica.

CIA/PDD KX-452

NOT RELEASABLE TO FOREIGN NATIONALS

Sci - Chem
May 58

64,069

IAC INTERNAL USE ONLY

Directed Polymerization of Ethylene and Its
Homologues, by Karl Ziegler, 27 pp.

GERMAN, per, Brennstoff-Chemie, Vol XXXV, 1954,
pp 321-325.

28,375

CIA/FDD/X-1874

XX-1

IAC ONLY

Scientific - Chemistry

Nov 55 CTS

The Polymerization of Ethylene, by Karl Ziegler,
19 pp.

FRENCH, per, Bull de la Soc Chim de France, 1955,
pp 1-6. S.A. 600687

ATIC F-TS-10028/V

Sci - Chemistry
Dec 1956 CTS/dex

46, 473

Process for Dimerization of Olefins or Olefinic
Mixtures, by Dr. Karl Ziegler, 3 pp.

GERMAN, patent application, No 2 3803 (120,
19/01), Filing date: 20 Nov 1953, publ date:
12 Aug 1954, (supplement to patent 878 560).

CIA/TDD/ZX-66

Scientific - Chemistry

Jan 56 CTS/DEX

LAC INTERNAL USE ONLY

30,658

Method for the Preparation of High Molecular
Weight Polyethylenes Applicable to Plastics,
by Karl Ziegler, 4 pp.

GERMAN, Patent Appln No Z 4629, IVc/39.

25,150

CIA/FID/X-1717

Scientific - Chemistry

Jul 55 CTS

A Process for the Manufacture of Organic Alkali
Metal Compounds, Inventor Karl Ziegler, 7 pp.

GERMAN, patent 487,727, 7 Jan 1930.

CIA/FDD XK-747

NOT RELEASABLE TO FOREIGN NATIONALS

Sci - Engr
Jan 60

USIB INTERNAL USE ONLY

Method for the Preparation of High Polymers of
Ethylene Useful as Plastics, by Karl Ziegler,
6 pp.

GERMAN, Patent Appln No 4628 IVc/39c, 22 Dec 1954,
(Patent Supplement - Patent Appln No Z-3942 IVc/39c.

CIA/FDD/X-1716

25,151

Scientific - Chemistry

Jul 55 CTS

Method for the Purification of Polyolefins, by
Karl Ziegler, 4 pp.

GERMAN, patent Appln No Z-4627 IVc/39c.

CIA/FDD/X-411 1715

25,152

Scientific - Chemistry

Jul 55 CT8

Method for the Preparation of High ^l Molecular
Weight ~~Et~~ Polyethylenes Applicable as Plastics,
by Karl Ziegler, 4 pp.

GERMAN, Patent Appln No Z-4603, IVc/39c, 10 Dec 1954,

CIA/FDD/X-1711

25,156

Scientific - Chemistry

Jul 55 CTS

Process for the Preparation of Complex Compounds
From Aluminum Hydrocarbons and Alkali Fluorides,
by Karl Ziegler, R. Koester, 2 pp,

GERMAN, Patent Application No Z-2971, 120-26/03,
26 Aug 1954.

CIA/FDD/X-1589
CIA/FDD/X-1721

22,864

Scientific - Chemistry Apr 55 CTS

Process for the Preparation of Alkyl Aluminum
Hydrides, by Karl Ziegler, 5 pp.

GERM AN, Patent Appln No Z-4635, 12 o, 26/03,
4 Feb 1954.

Research Information Service
CIA/VID/X-1707

25,160

Scientific - Chemistry

Jul 55 CT8

Process for the Preparation of Organic Compounds
of Aluminum, by Karl Ziegler, 10 pp.

GERMAN, Patent Appln No Z-2579, 12 o, 26/03,
11 Mar 1954.

CIA/FID/X-1708

PLS 8/14/54 25,159

25,159

Scientific - Chemistry Jul 55 CTS

Process for Purifying High Polymers of
Propylene, by Karl Ziegler, 10 pp.

ITALIAN, Belgian patent 563 859, by Montecatini,
Societa Generale per l'Industria Mineraria e
Chimica, Milan, filed 10 Jan 1958 (Priority:
Montecatini, Milan, Italian Patent Application
450, 10 Jan 1957).

RIS rept. 96969

Sci

Apr 61

DIS, Vol III, No 12

16 3,218

Cyclic Process for the Manufacture of d-Olefins by
Reacting Organoaluminum Halides With Olefins, by
Karl Ziegler.

BELGIAN, Patent, 588,723.

CIA/FDI XX-1059

NOT RELEASABLE TO FOREIGN NATIONALS

Sci - Engr.

Oct 61

170, 163

USID INTERNAL USE ONLY

Improved Catalyst for the Polymerization of
olefins, by Karl Ziegler, 13 pp.

EMILIANI, Belgian patent 570 168, by Montecatini,
Societa Generale per l'Industria Mineraria e
Chimica, Milan, appl. 7 Aug 1958 (Italian
priority 11 764, 8 Aug 1957).

RIS rept. 97057

Sci
Agr 61
OTS, Vol III, No 12

163,219

New Developments of the Organometallic Synthesis,
by Karl Ziegler, 22 pp.

GERMAN, per, Angew Chem, Vol LXVIII, 1956, pp 721-
729.

CIA/PDD XI-353

NOT RELEASABLE TO FOREIGN NATIONALS

Sci - Chem

Dec 57

IAC INTERNAL USE ONLY

56,138

Process for the Production of Tetraethyl Lead,
by Earl E. Rogers, 31 pp.
Patent 575,591, 13 Feb 1958.

RUB Rept. 97012

179,908

Sci
Jan 62
Vol III, No 10

Process for the Production of Higher Molecular
Weight Branch Alkyls from Lower Molecular Weight Branch
Alkyls, by Karl G. Gieseler, R. Kottler, W. R. Groll,
6 pp.

GREENMAN, Patent Application 2,055,534 (St 13,664
IV 8/125) Filed 13 Jan 59, laid open to public
inspection 23 Apr 59, by Karl Gieseler.

SLA 59-77236

104,815

Sci
Jan 60
Vol 2, No 1

Process for the Preparation of Organic Compounds
of Aluminum and Beryllium, by Karl Ziegler,
12 pp.

GERMAN, ~~xx~~ Patent Appln No Z-1955, 12 o, 26/03,
31 Dec 1953.

CIA/FID/X-1706

25, 161

Scientific - Chemistry Jul 55 CTS

Process for the Preparation of Sodium Cyclopentadiene
and Sodium Alkylcyclopentadiene and Sodium
Benzylcyclopentadiene, by Karl Ziegler,
Klaus Hafner, 2 PP.

GERMAN, Patent Appl No Z 2857, 12 o, 25,
28 Oct 1954, Mülheim/Ruhr.

u

28,658

CIA/FDD/XX-22

IAC Internal Use Only

Scientific - Chemistry

Nov 55 CTS

Process for Production of Higher Olefins, by Karl
Ziegler, 22 pp.

GERMAN, Patent application Z 3915 (120, 19/01)
DAS 1,034,169, filed 7 Jan 1954, Pub 17 Jul 1958.

RIS rept 96948

Sci - Chem
Sep 59
Vol 2, No 1

97,800

Ziegler, Karl, Gellert, Hans-Georg, Martin, Heinz,
Nagel, Konrad, and Schneider, Josef.

REACTION OF THE ALUMINUM-HYDROGEN COM-
BINATION WITH OLEFINS. Pt. 19 of Metalloorganic
Compounds. [1963] 56p (figs omitted)
Order from K-H \$56.00

K-H-3215

Trans. of [Justus] Liebigs Annalen der Chemie (West
Germany) 1954, v. 589, no. 2, p. 91-121.

DESCRIPTORS: Metalloorganic compounds, *Aluminum
compounds, *Hydrogen, *Ethylenes, Chemical reactions

(Chemistry--Organic, TT, v. 10, no. 12)

63-22845

- I. Ziegler, K.
- II. Gellert, H.-G.
- III. Martin, H.
- IV. Nagel, K.
- V. Schneider, J.
- VI. Title: Metalloorganic...
- VII. K-H-3215
- VIII. Kresge-Hooker Science
Library Associates,
Detroit, Mich.

6.31

Office of Technical Services

Ziegler, Karl, Martin, Heinz, and Krupp, Felix.
ALUMINUM TRIALKYLS AND DIALKYL ALUMINUM
HYDRIDES FROM ISOBUTYL ALUMINUM COM-
POUNDS. Pt. 2/ of Metalloorganic Compounds. [1961]
8p

Order from K-H \$8.00

K-H-10024-12

Trans. of [Justus] Liebigs Annalen [der] Chemie (West
Germany) 1960, v. 629 (no. 1/3) p. 14-19.
Another trans. is available from SLA \$1.10 as
61-20450 [1961] 8p

DESCRIPTORS: Metalloorganic compounds, *Aluminum
compounds, *Hydrides, *Alkyl radicals, *Butyl radi-
cals, Synthesis (Chemistry), Chemical reactions.

(Chemistry--Organic, TT, v. 10, no. 12)

63-22847

I. Title: Alkylaluminum
hydride

I. Ziegler, K.

II. Martin, H.

III. Krupp, F.

IV. Title: Metalloorganic...

V. K-H-10024-12

VI. Kresge-Hooker Science
Library Associates,
Detroit, Mich. 48201

A256332

Office of Technical Services

TT-63-22832

Ziegler, Karl and Kleiner, M.
POLYMERIZATION OF UNSATURATED HYDRO-
CARBONS UNDER THE INFLUENCE OF ALKALI
METALS AND ALKALI METAL ALKYL. Pt. 3 of
[Research on Alkali Organic Compounds]. [1963] 37p
(figs omitted)
Order from K-H 537.00 K-H 3559 b

Trans. of [Justus Liebig's] Annalen der Chemie
(Germany) 1929, v. 173, p. 57-82.

DESCRIPTORS: *Alkyl radicals, *Alkali metals, *Hy-
drocarbons, Polymerization

(Chemistry-Organic, TT, v. 11, no. 1)

- I. Ziegler, K.
- II. Kleiner, M.
- III. K-H-3559-b
- IV. Kresge-Hooker Science
Library Associates,
Ketroit, Mich.

Office of Technical Services

Ziegler, Karl; Grimm, H., and Wille, R.
 CATALYTIC ACTIVITY OF ZEPHYRUS
 Pt. 15 of [Research] on Alkali Organic Compounds
 [1963] 48p (figs omitted)
 Order from K-H 3456.00

K-H 3456.00

Trans. of [Justus Liebig's] Annalen der Chemie
 (German) 1940, v. 542, p. 90-122

DESCRIPTORS: *Butadiene, Polymerization, Organic
 compounds

TT-63-22830

- I. Ziegler, K.
- II. Grimm, H.
- III. Wille, R.
- IV. K-H 3456-m
- V. Title: Research...
- VI. Kresge-Hooker Science
 Library Associates,
 Detroit, Mich.

(Chemistry--Organic, TT, v. 11, no. 1)

Office of Technical Services

Ziegler, Karl and Gellert, H. G.
ADDITION OF LITHIUM ALKYL TO ETHYLENE.
[1963] 18p (figs omitted) 18refs
Order from SLA \$1.60

63-18956

Trans. of [Justus Liebig's Annalen der Chemie]
(West Germany) 1950, v. 567, p. 195-203.

DESCRIPTORS: *Ethylenes, *Alkyl radicals, *Lithium
compounds, Additives, Pyrolysis, Chemical reactions.

(Chemistry--Organic, TT, v. 10, no. 12)

63-18956

I. Ziegler, K.
II. Gellert, H. G.

6055

Office of Technical Services

Ziegler, K[arl] and Gellert, H. G.
REACTIONS BETWEEN LITHIUM ALKYL AND
ETHERS. [1963] 11p (figs omitted) 5 refs
Order from SLA \$1.60

63-18952

Partial trans. (p. 185-190) of [Justus] Liebig's
Ann[alen der Chemie] (West Germany) 1950, v. 567,
p. 185-195.

DESCRIPTORS: *Ethers, *Alkyl radicals, *Lithium
compounds. Decomposition, Chemical reactions.

(Chemistry--Organic, TT, v. 10, no. 12)

63-18952

I. Ziegler, K.
II. Gellert, H. G.

6056

Office of Technical Services

Ziegler, K.
THE IMPORTANCE OF ALKALI METALLO-ORGANIC
COMPOUNDS FOR SYNTHESIS. [1964] 17p 4reals
Order from SLA \$1.60
TT-64-14901

Trans. of Angew[andte] Chemie (Germany) 1936, v. 49,
no. 30, p. 499-502.
Another trans. is available from K-H \$17.00 as
K-H-3456-k [1963] 17p.

TT-64-14901

I. Ziegler, K.

299090

(Chemistry--Organic, TT, v. 11, no. 11)

Office of Technical Services

Ziegler, K., Grimm, H., and Willer, R.
[ALKALI ORGANIC COMPOUNDS], XV. CONTROLLER
1,4-POLYMERIZATION OF BUTADIENE. [1964] 48p
(figs omitted) 10 refs
Order from SLA \$4.60

TT-64-14906

Trans. of (Justus Liebig) Annalen der Chemie
(Germany) 1939, v. 542, p. 90-122.

See also TT-64-14896.

(Chemistry--Organic, TT, v. 11, no. 11)

TT-64-14906

I. Ziegler, K.
II. Grimm, H.
III. Willer, R.
IV. Title: Controller...

.050571

Office of Technical Services

TT-64-14926

Ziegler, K., Crossmann, P., Kleiner, H.,
and Schäfer, O.
ALKALI ORGANIC COMPOUNDS. I. REACTIONS BE-
TWEEN UNSATURATED HYDROCARBONS AND
ALKALI METAL ALKYL. [1964] 48p (figs omitted)
35 refs
Order from SLA \$4.60

TT-64-14926

Trans. of [Justus Liebig] Annalen der Chemie
(Germany) 1929, v. 473, p. 1-35.

- I. Ziegler, K.
- II. Crossmann, P.
- III. Kleiner, H.
- IV. Schäfer, O.
- V. Title: Reactions...

580569

(Chemistry--Organic, TT, v. 11, no. 11)

Office of Technical Services

Ziegler, K. and Kleiner, H.
POLYMERIZATION OF UNSATURATED HYDRO-
CARBONS UNDER THE INFLUENCE OF ALKALI
METALS AND ALKALI METAL ALKYLs, III. (1964)
37p (figs omitted) Trans
Order from SLA \$3.60

TT-64-14928

Trans. of [Justus Liebig's] Annalen [der Chemie]
(West Germany) 1929, v. 473, p. 57-82.

(Chemistry--Organic, TT, v. 11, no. 11)

TT-64-14928

I. Ziegler, K.
II. Kleiner, H.

1360570

Office of Technical Services

63-22506

Ziegler, Karl and Hoberg, H.
REACTION INHIBITION OF ALUMINUM TRIALKYLS
BY ASSOCIATION. [1963] 22p
Order from K-H \$22.00 K-H 11313

Trans. of Chemische Berichte (West Germany) 1960,
v. 93 [no. 12] p. 2938-2950.

DESCRIPTORS: *Ziegler catalysts, *Metalorganic
compounds, *Aluminum compounds, Alkyl radicals,
Chemical reactions.

I. Ziegler, K.
II. Hoberg, H.
III. K-H-11313
IV. Kresge-Hooker Science
Library Associates,
Detroit, Mich.

1252520

(Chemistry--Physical, TT, v. 10, no. 10)

Office of Technical Services

Ziegler, Karl, Lehmkuhl, Herbert, and
Lindner, Eberhard.
ELECTROLYSIS OF SEVERAL COMPLEX ORGANO-
ALUMINUM COMPOUNDS ON INDIFFERENT
ANODES. [1963] 21p
Order from K-H \$21.00

K-H 9575

Trans. of Chemische Berichte (West Germany) 1959,
v. 92, p. 2320-2332.

DESCRIPTORS: *Ziegler catalysts, *Metalorganic
compounds, Complex compounds, *Aluminum com-
pounds, Alkyl radicals, Electrolysis, *Electro-
chemistry, Anodes (Electrolytic cell).

(Chemistry--Physical, TT, v. 10, no. 10)

63-22507

- I. Ziegler, K.
- II. Lehmkuhl, H.
- III. Lindner, E.
- IV. K-H-9575
- V. Kresge-Hooker Science
Library Associates,
Detroit, Mich.

1252507

Office of Technical Services

Ziegler, Karl and Wenz, Adolf.
STEREOCHEMICAL STUDIES. III. THE PROBLEM OF
OPTICALLY ACTIVE ALKALI ORGANIC COMPOUNDS.
[1963] 8p

Order from K-H \$8.00

K-H 3456 i

Trans. of Chemische Berichte (West Germany) 1950,
v. 83, p. 354-358.

DESCRIPTORS: *Stereochemistry, *Alkali metal
compounds, *Metallorganic compounds, Ziegler
catalysts.

(Chemistry--Organic, TT, v. 10, no. 10)

63-22505

I. Ziegler, K.
II. Wenz, A.
III. Title: Problem . . .
IV. K-H-3456-i
V. Kresge-Hooker Science
Library Associates,
Detroit, Mich.

1252360

Office of Technical Services

Ziegler, K[arl].
THE IMPORTANCE OF ALKALI METALLO-
ORGANIC COMPOUNDS FOR SYNTHESIS. [1963] 20p
Order from K-H \$20.00 K-H 3456-1

Trans. of Angewandte Chemie (Germany) [1936] v. 49,
p. 455-460.

DESCRIPTORS: *Metalorganic compounds, Synthesis
(Chemistry), *Alkali metal compounds.

(Chemistry--Organic, TT, v. 10, no. 10)

63-22503

- I. Ziegler, K.
- II. K-H-3456-1
- III. Kresge-Hoover Science
Library Associates,
Detroit, Mich.

135241.

Office of Technical Services

Ziegler, Karl.
METHOD FOR OBTAINING ORGANIC COMPOUNDS OF
ALUMINUM AND BERYLLIUM. [1963] 24p.
Order from OTS or SLA \$2.60 63-16813

Trans. of Belgian patent 512,267, appl. 20 June 52,
issued 15 July 52.

DESCRIPTORS: *Organic compounds, *Aluminum com-
pounds, *Beryllium compounds, *Hydrocarbons,
*Ethylene, Chemical reactions.

The invention concerns new methods for obtaining
organic compounds of aluminum and beryllium. It rests
on the observation that the compounds of the general
formula $Me(R)_n$, in which Me represents one of the two
indicated metals, R represents hydrogen or a saturated
monovalent radical, aliphatic or aromatic, in any
combination whatever, and n has the value of the valence
of the metal Me, can combine with olefins. The com-
(Chemistry-Organic. TT, v. 10, no. 9) (over)

63-16813

I. Ziegler, K.
II. Patent (Belgium) 512 267

Office of Technical Services

Ziegler, Karl and Koster, Roland.
PROCESS FOR THE PREPARATION OF ORGANO-
ALUMINUM COMPOUNDS ESPECIALLY THE TRI-
ALKYLS TOGETHER WITH CRYOLITE. [1963] 11p.
Order from OTS or SLA \$1.60 63-16814

Trans. of German patent application Z2838, 22 July 52.

DESCRIPTORS: *Aluminum compounds, Organic com-
pounds, *Cryolite, Alkyl radicals.

The invention concerns a process for the preparation of
organo-aluminum compounds, especially aluminum tri-
alkyls, together with cryolite, characterized in that
alkyl or aryl aluminum halides, especially alkyl alumi-
num sesquihalides are reacted with alkali fluorides at
elevated temperature, advantageously in exact stochio-
metric proportions, and under nitrogen. (Author)

(Chemistry--Organic, TT, v. 10, no. 9)

63-16814

- I. Ziegler, K.
- II. Koster, R.
- III. Patent application
(Germany) Z 2 838

449617

Office of Technical Services

SAC TT-65-11201

63-16817

Ziegler, Karl, Gellert, Hans-Georg, and Nagel,
Karl.

PROCESS FOR THE PREPARATION OF ALKYL-
ALUMINUM HYDRIDES. [1963] 10p.
Order from OTS or SLA \$1.10 63-16817

Trans. of German patent 918,928, pub. 7 Oct 54.

DESCRIPTORS: *Aluminum compounds, *Alkyl radi-
cals, *Hydrides, Halides, Metalorganic compounds,
*Ziegler catalysts.

The invention includes a process for the preparation of
alkyl aluminum hydrides of the general formula AlH_2X ,
wherein X is alkyl, R and Y are alkyl or hydrogen, and
their complex compounds with alkali hydrides, char-
acterized by the fact that one reacts alkyl aluminum
dihalides or dialkyl aluminum monohalides with alkali
hydrides. (Author)
(Chemistry--Organic, TT, p. 10, no. 9)

- I. Ziegler, K.
- II. Gellert, H.-G.
- III. Nagel, K.
- IV. Patent (Germany) 918 928

Office of Technical Services

Ziegler, Karl.
PROCESS FOR THE POLYMERIZATION OF OLEFINS
AND SOLID OLEFIN POLYMERS. [1963] 2850 words.
Order from CTS(Chem) \$11.40 CTS(Chem)-330
subsequent copies \$1.90/ea.

Trans. of Italian patent 537,164, filed 30 June 55,
granted 19 Dec 55, by Montecatini Società Generale per
l'Industria Mineraria e Chimica.

DESCRIPTORS: *Polyethylene plastics, Synthesis,
Ethylenes, Propenes, Butenes, Polymerization, Metal-
organic compounds, Complex compounds, *Ziegler
catalysts.

(Materials--Plastics, TT, v. 10, no. 2)

63-17431

- I. Ziegler, K.
- II. Patent (Italy) 537 164
- III. CTS(Chem)-330
- IV. Chemical Translating
Service, Palo Alto, Calif.

Office of Technical Services

61-20291

Ziegler, Karl, Froitzheim-Kuhlhorn, Helga, and
Hafner, Klaus.

METAL COMPOUNDS OF CYCLOPENTADIENE.

Pt. 21 of Metallo-Organic Compounds. [1961] 12p.

1b refs.

Order from SLA \$11.60

61-20291

Trans. of Chem[ische] Ber[ichte] (West Germany)

1956, v. 89, p. 434ff.

DESCRIPTORS: *Metalorganic compounds, Organic
compounds, *Cyclopentadiene, Pentadienes, Sodium
compounds, Calcium compounds, Carboxylic acids,
Acids, Synthesis.

Various methods for the preparation of cyclopenta-
dienylsodium are described. With sodium metal,
cyclopentadiene reacts as an acid with evolution of
hydrogen. With sodium in liquid ammonia, no hydro-
gen is given off; however, 1/3 of the cyclopentadiene
(Chemistry--Organic, TT, v. 7, no. 1) (over)

- I. Ziegler, K.
- II. Froitzheim-Kuhlhorn, H.
- III. Hafner, K.
- IV. Title: Metallo-Organic...

184252

Office of Technical Services

Ziegler, Karl.

PROCESS FOR POLYMERIZATION ETHYLENE
[Procédé pour la Polymérisation de l'Éthylène]. Jan 64
[26p]

Order from RIS \$36.00
Polyolefins Set \$750.00

RIS-96372

Trans. of Belgian patent 527 736, Mar 54. (Abstract
available)

DESCRIPTORS: *Polyethylene plastics, *Butenes,
*Ethylenes, Polymerization, Metalorganic compounds,
*Ziegler catalysts, *Aluminum compounds, Alkyl
radicals, *Nickel catalysts, *Cobalt catalysts,
*Platinum catalysts,

Finely divided nickel, cobalt or platinum activators are
used in varying proportions or varying degrees of
activity to control in large measure as desired, the poly-
merization of ethylene in the presence of trialkyl-
(Materials--Plastics, TT. v. 11, no. 11) (over)

TT-64-12517

I. Ziegler, K.
II. Patent (Belgium) 527 736
III. RIS-96372
IV. Research Information
Service, New York

280815

Office of Technical Services

Ziegler, Karl.
LOW-PRESSURE PROCESS FOR PRODUCTION OF
HIGH-MOLECULAR WEIGHT POLYETHYLENES AND
CATALYSTS FOR THIS PROCESS [Procédé de Prépara-
tion de Polyéthylènes à Poids Moléculaires Elevés
Utilisables comme Produits Artificiels, et Catalyseurs
pour sa Réalisation]. Jan 64 [21p]
Order from RIS \$29.00
Polyolefins Set \$750.00

RIS-96370

Trans. of Belgian patent 534 792, Jan 55. (Abstract
available)

DESCRIPTORS: *Polyethylene plastics, *Fibers
(Synthetic), Alkenes, Polymerization, Metalorganic
compounds, *Ziegler catalysts, *Aluminum compounds,
Alkyl radicals,

Polyethylenes ranging in molecular weight from 2000 to
50,000 or even 3,000,000, which can be processed into
(Materials--Plastics, TT, v. 11, no. 11) (over)

TT-64-12486

- I. Ziegler, K.
- II. Patent (Belgium) 534 792
- III. RIS-96370
- IV. Research Information
Service, New York

1280816

Office of Technical Services

Ziegler, Karl.
PROCESS FOR PRODUCTION OF TRIALKYLALUMI-
NUMS AND ALKYLALUMINUM HYDRIDES (Procédé
pour la Préparation d'Aluminium Trialcyles et
Dehydrides d'Aluminium Alcoyles). Jan 64 [31p]
Order from RIS \$34.00 RIS-96873
Metal Organics Set \$200.00

Trans. of Belgian patent 585 235, Jan 55. (Abstract
available)

DESCRIPTORS: *Metalorganic compounds, *Ziegler
catalysts, *Aluminum compounds, Alkyl radicals,
*Hydrides, Synthesis (Chemistry).

Trialkylaluminums and alkylaluminum hydrides are pro-
duced directly by reacting activated aluminum with
olefins and hydrogen under pressure. The aluminum is
activated by mechanical division and measures prevent-
ing formation of an inactive oxide surface layer. (RIS
abstract)

TT-64-12473

- I. Ziegler, K.
- II. Patent (Belgium) 585 235
- III. RIS-96873
- IV. Research Information
Service, New York

00817

(Chemistry--Organic,
TT, v. 11, no. 11)
Office of Technical Services

New Reactions of Unsaturated Hydrocarbons,
by Earl Ziegler, 5 pp.

GERMAN, Ber, Gluckauf, Vol LXXXVIII,
No 15/16, 1952, pp 380-382.

SIA 60-16798

Sci
Vol IV, No 7
Apr 62

192,656

TT-64 12488

Ziegler, Karl
LOW-PRESSURE PROCESS FOR POLYMERIZATION
OF PROPYLENE AND APPLICATIONS OF THE "END-
TO-END" POLYMERS SO OBTAINED, Jan 64.
Order from RIS \$85.00 RIS-96480
Polyolefins Set \$750.00

I. Ziegler, K.
II. Patent (Belgium) 538 782
III. RIS-96480
IV. Research Information
Service, New York

Trans. of Belgian patent 538 782, by Montecatini,
Jun 55. (Abstract available)

DESCRIPTORS: *Polyethylene plastics, *Fibers
(Synthetic), *Propenes, Polymerization, Metalorganic
compounds, *Ziegler catalysts,

80818

Linear, predominantly unbranched polymers charac-
terized by end-to-end chain linkage (coiled chains) and
average weights above 10,000 are obtained by poly-
merizing α -olefins or mixtures thereof with catalysts
prepared by reacting compounds of metals of groups
(Materials--Plastics, TT, v. 11, no. 11) (over)

Office of Technical Services

Ziegler, Karl.

PROCESS FOR PRODUCTION OF HIGH-MOLECULAR
WEIGHT POLYETHYLENES USABLE AS PLASTICS,
PRODUCTS OBTAINED BY THIS PROCESS AND
CATALYSTS FOR USE IN THIS PROCESS. Jan 64.
Order from RIS \$42.50
Polyolefins Set \$750.00

RIS-94567

TT-64-12493

- I. Ziegler, K.
- II. Patent (Belgium) 542 658
- III. RIS-94567
- IV. Research Information
Service, New York

Trans. of Belgian patent 542 658, Nov 53. (Abstract
available)

DESCRIPTORS: "Polyethylene plastics, Ethylene,
Polymerization, Metalorganic compounds, "Ziegler
catalysts, "Aluminum compounds, Alkyl radicals,

1260819

Polyethylenes with a degree of crystallinity equal to or
least 80% are obtained by a process using a new
catalyst system that combines previously known
aluminum-organic compounds with iron compounds such
as iron chlorides. (RIS abstract)
(Materials--Plastics, TT, v. 11, no. 11)

Office of Technical Services

Ziegler, Karl.
PROCESS FOR SELECTIVE POLYMERIZATION OF
 α -OLEFINS INTO CRYSTALLINE OR AMORPHOUS
POLYMERS. Jan 64.

Order from RIS \$80.00
Polyolefins Set \$750.00

RIS-96588

Trans. of Belgian patent 543 259, by Montecatini,
Nov 55. (Abstract available)

DESCRIPTORS: *Polyethylene plastics, *Alkenes,
Polymerization, Metalorganic compounds, *Ziegler
catalysts, *Aluminum compounds, Alkyl radicals,

The polymerization of α -olefins with the aid of catalysts
prepared by reaction of compounds of IVB-VIB metals
with aluminum-organic compounds can be directed to-
ward the exclusive or preponderant formation of either
isotactic or non-isotactic polymers by the appropriate
variation of chemical or physical characteristics of the
catalysts system. (RIS abstract)

TT-64-12494

- I. Ziegler, K.
- II. Patent (Belgium) 543 259
- III. RIS-96588
- IV. Research Information
Service, New York

1260820

(Materials--Plastics,
TT, v. 11, no. 11)
Office of Technical Services

TT-64-12487

Ziegler, Karl.
PROCESS FOR PRODUCTION OF HIGH-MOLECULAR
WEIGHT POLYETHYLENE AND NEW POLYMERIZA-
TION CATALYSTS [Procédé pour la Préparation de
Polyéthylènes de Poids Moléculaires Elevés Utilisables
comme Produits Synthétiques et Catalyseurs pour la
Mise en Oeuvre de ce Procédé]. Jan 64 (12p)
Order from RIS \$20.00 RIS-96371
Polyolefins Set \$750.00

Trans. of Belgian patent 543 888, Jan 55. (Abstract
available)

DESCRIPTORS: *Polyethylene plastics, *Ethylenes,
Polymerization, Metalorganic compounds, *Ziegler
catalysts, *Magnesium compounds, *Zinc compounds,
Alkyl radicals,

Gaseous ethylene is polymerized rapidly at low pres-
sures into plastics products with molecular weights
(Materials--Plastics, TT, v. 11, no. 11) (over)

- I. Ziegler, K.
- II. Patent (Belgium) 543 888
- III. RIS-96371
- IV. Research Information
Service, New York

60821

Office of Technical Services